

**DESERT STORM: DOCTRINAL AIRLAND BATTLE
SUCCESS OR "THE AMERICAN WAY OF WAR?"**

**A MONOGRAPH
BY
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Armor**



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ABSTRACT

DESERT STORM: DOCTRINAL AIRLAND BATTLE SUCCESS OR "THE AMERICAN WAY OF WAR"? by MAJ Robert J. Paquin, USA, 59 pages.

The purpose of this monograph is to answer the question, "Did the United States Army use AirLand Battle at the operational level to win the Persian Gulf War?"

This research studied the planning and execution, at the operational level, of Desert Shield/Desert Storm to determine if the U.S. Army did use the operational model of AirLand Battle to achieve victory in Desert Shield/Desert Storm. The research only focused on the Army performance and did not address in detail the Joint aspect of military operations in the Persian Gulf War.

The criteria for analysis was based on selective AirLand Battle imperatives defined in FM100-5, Operations, dated May 1986. Ensure unity of effort, Concentrate combat power against enemy vulnerabilities, and Anticipate events on the battlefield were the three AirLand Battle imperatives used as evaluation criteria. They were selected from the complete list of AirLand battle imperatives discussed in the manual because they focus on issues called to question on rather AirLand Battle was used to win the Persian Gulf War.

The study of Desert Shield / Desert Storm revealed that the U.S. Army did use the three AirLand Battle imperatives of ensure unity of effort, concentrate combat power against enemy vulnerabilities, and anticipate events on the battlefield as a basis to conduct the Gulf War. Mistakes were made in applying these imperatives, however, the ground offensive was planned and conducted in accordance with the Army's AirLand Battle doctrine. The AirLand Battle doctrine that was developed during the decade following the U.S. defeat in Vietnam, and is an application of classic twentieth-century maneuver theory for mechanized forces.

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CHAPTER 1

INTRODUCTION

At the very heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory. Doctrine is of the mind, a network of faith and knowledge, reinforced by experience, which lays a pattern for the utilization of men, equipment, and tactics. It is fundamental to sound judgement.

General Curtis LeMay¹

Introduction, Background and Significance

In the first three months of 1991, the armed forces of an unparalleled United Nations coalition attacked and destroyed the core of Iraq's military forces. This military action freed the geographically small but oil-rich state of Kuwait from Iraqi occupation and control. The military actions of 7 August 1990 to 16 January 1991 (Operation Desert Shield) and those of 17 January to 3 March 1991 (Operation Desert Storm) conducted by United States Central Command (CENTCOM) were the military aspects of the strategic response by the United States, Saudi Arabia, and their coalition allies to the Iraqi aggression and occupation of Kuwait.²

Field Manual (FM) 100-5, *Operations*, (1986) set the doctrine that the U.S. Army took to the Persian Gulf in August 1990. The preface of FM 100-5 (1986) made explicit the function of this manual was to serve as "the Army's principal tool of professional self-education in the science and art of war...."³ It was a guide for Army commanders on how to orient and prepare their military force before the outbreak of a conflict, project those forces into a theater, plan and conduct operations, and redeploy those forces

to prepare for future operations. The 1986 version of FM100-5 explains the role of doctrine in the U.S. Army.

FM 100-5 is the Army's keystone warfighting manual. It explains how Army forces plan and conduct campaigns, major operations, battles and engagements in conjunction with other services and allied forces. It furnishes the authoritative foundation for subordinate doctrine, force design, materiel acquisition, professional education, and individual and unit training. It applies to Army forces worldwide, but must be adapted to the specific strategic and operational requirements of each theater. While emphasizing conventional military operations, it recognizes that Army forces must be capable of operating effectively in any battlefield environment, including low intensity conflict and on the nuclear and chemical battlefield.⁴

Before this century, the U.S. military doctrine was implied rather than set down. In fact, it was not until after World War I that the nature and purpose of doctrine was fixed in America as a genuine sub-class of military knowledge. All of this changed after Vietnam through the new Training and Doctrine Command (TRADOC). A new vision of the Army led by General William E. DePuy's training initiatives, particularly the initiation of the Army Training and Evaluation Program, was making doctrine to important to ignore. Following the Arab-Israeli War of 1973, the focus shifted even more to the role of doctrine and provided justified reason to thoroughly review U.S. doctrine in the light of weapon technology developments uncontaminated by the Vietnam experience.⁵

In its evolutionary development, doctrine, in the U.S. Army, is an authoritative and formal declaration of how the Army as a military organization intends to fight. The purpose of doctrine is to unify or synchronize the individual efforts of members of an organization in the performance of their collective tasks. It guides training, organization, and acquisition. General William E. DePuy, the first commander of the Army's Training

and Doctrine Command (TRADOC), gave a good explanation of military doctrine.

DePuy wrote:

The development and evolution of doctrine and its inculcation, mostly in the minds and hearts of the officer corps, are the life thread and the pulse of the fighting services. By definition and natural law, doctrine is institutional in character. Doctrine and the institution which it nourishes, and in turn, on which it feeds, are exactly coextensive. There is no doctrine outside the institutional walls—nor can the institution creep outside the doctrine which is its rationale....[Doctrine] is the mainspring behind the development of effective fighting forces.⁶

In general, military doctrines have always been an expression of time and environment. "Any armed force operates in accordance with a conception of war that has been formed as a consequence of its history, the state of military knowledge available at the time, the material and technical assets at hand, the objectives to which the force expects to be committed, and, certainly not least, the caliber of those who must attempt to give it life in battle."⁷ However, experience has shown that military forces must strike a balance between the past and future if they are to be prepared for their next war. The U.S. Army proclaims that the doctrine established by the 1986 version of FM100-5, *Operations*, attained this balance. General Robert Scales, in his book *Certain Victory: The U.S. Army in the Gulf War*, claims that the Army's AirLand Battle war-fighting doctrine applied during Desert Storm, "not only survived the initial clash of arms but, in fact, continues as a viable foundation for the development of future war-fighting doctrine."⁸ AirLand Battle doctrine was able to do this because it was a vision of futuristic possibilities rather than focused solely on the present Army organization and equipment.

Many senior military leaders have stated that the U.S. Army's swift victory in Desert Storm proved that AirLand Battle doctrine was effective. They have also used this as a validation of the developmental process used to produce the doctrine, educate and train soldiers and units, develop leaders, and research, acquisition and develop material. Colonel David A. Fastbend, a member of the FM 100-5 (1986) writing team stated, "The 1986 FM100-5 represented the culmination of a line of doctrinal development that began with the 1976 edition. It was tested – and passed triumphantly – in the Persian Gulf War."⁹ General Starry in a speech at Gettysburg has stated, "the American Army had discovered the uses of doctrine, and how those uses had helped to make the Army of today. And he recounted how, as he watched with the rest of us the war in the Persian Gulf unfold, he thought to himself, 'it all worked'."¹⁰

A testament to the confidence the Army had in AirLand Battle doctrine in the aftermath of its application in the Gulf War can be seen in the first postwar successor manual, the 1993 edition of FM100-5. This new manual, published under the leadership of the VIIth Corps Commander during the war, General Fred Franks, as the TRADOC commander, retained much of the AirLand Battle principles from the 1986 manual.¹¹

Have we learned the right lessons from Desert Storm as it pertains to doctrine development? Did we use AirLand Battle during Desert Storm at the operational level or did we simply conduct our military actions as author Russell Weigley calls the "American way of war"?¹²

Purpose and Methodology

The purpose of this monograph is to answer the question, "Did the United States Army use AirLand Battle at the operational level to win the Persian Gulf War?"

This research studied the planning and execution, at the operational level, of Desert Shield/Desert Storm to determine if the U.S. Army did use the operational model of AirLand Battle to achieve victory in Desert Shield/Desert Storm. The research only focused on the Army performance and did not address in detail the Joint aspect of military operations in the Persian Gulf War. The JCS Publication 1-02 definition of Operational Level of War was used in conducting this research. JCS Publication defines the Operational Level of War as,

“The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives.”¹³

The criteria for analysis was based on selective AirLand Battle imperatives defined in FM100-5, Operations, dated May 1986. Ensure unity of effort, Concentrate combat power against enemy vulnerabilities, and Anticipate events on the battlefield were the three AirLand Battle imperatives used as evaluation criteria. They were selected from the complete list of AirLand battle imperatives discussed in the manual because they focus on issues called to question on rather AirLand Battle was used to win the Persian Gulf War.

CHAPTER 2

EVALUATION CRITERIA

The Army's doctrine is the starting point for all operations. In a particular situation, the Army commander applies doctrine to bring his elements into harmony. Army doctrine must be flexible enough to enable the commander to improvise to meet the requirements of the specific case. Doctrine unifies the disparate elements of the Army toward a common, effective result – decisive victory.

General Gordon R. Sullivan
Chief of Staff of the Army¹⁴

Introduction to Criteria.

The chaos of combat will place a premium on the initiative, spirit cohesion, and mental and physical preparedness of soldiers and their units. The U.S. Army can meet its challenge – to preserve the peace and security, and provide for the defense of the United States, the Territories, Commonwealths, and Possessions, and any areas occupied by the United States; support national policies; implement national objectives; and overcome any nations responsible for aggressive acts that imperil the peace and security of the United States.¹⁵ In order to do this it will depend on three essential components. First, it will depend on well-trained soldiers and leaders with character and determination. Second, the Army must have weapons and supporting equipment sufficient for the task at hand, and finally, sound well-understood doctrine for fighting.¹⁶

The years between 1968 and 1986 may be characterized as a period when the U.S. Army moved from a tactical paradigm based on the experiences of World War II to one based on the realities of armored warfare as it was reflected in the 1973 Arab-Israeli War.

The doctrinal shift was significant. Some have even argued that the shift was revolutionary.¹⁷ The doctrinal development and debate, which started in 1973 and continued throughout the period, helped to prepare the Army for late twentieth century armored warfare. The developments are evident in succeeding editions of FM100-5, *Operations*, the Army's capstone document. Published four times during the period, three of the editions vary greatly from each other. They are the 1968 edition, the 1976 edition ("Active Defense"), and the 1982 edition ("AirLand Battle"). The most radical changes occurred in the 1976 and 1982 editions. These two editions differed dramatically from the previous, almost standardized model based on the American experience in World War II.

The doctrine in the 1986 edition of FM100-5 was also entitled "AirLand Battle." It was essentially an updated version of the 1982 edition that confirmed the general correctness of the earlier edition. It also reflected new knowledge about operational art and clarified misconceptions about AirLand Battle doctrine and that the "basic thrust of AirLand Battle was on the mark."¹⁸ The world view or view of future war and future threat changed little in the new publication. However, in response to the requirement to support more contingency operations, the new manual recognized the need for a greater capability to deploy forces from the United States to a "hot spot" around the world.

The new manual addressed campaign planning in more detail. It placed greater emphasis on operational art and sustained multi-engagement operations within a theater of operations.¹⁹ AirLand Battle reflects the dynamics of combat power, the structure of modern warfare, and the application of the classical principles of war to present-day battlefield requirements. It recognizes the inherently three-dimensional nature of modern

warfare. AirLand Battle doctrine recognized that modern warfare is likely to be fluid and nonlinear. Therefore, it took an enlarged view of the battlefield, stressing unified air, ground, and sea operations throughout the theater.

The 1986 edition stressed the importance of operational art. It stated, “if successful, strategy achieves national and alliance political aims at the lowest cost in lives and treasure. Operational art translates those aims into effective military operations and campaigns.”²⁰ The authors defined operational art as “the employment of military forces to attain strategic goals in a theater of war or theater of operations, through the design, organization, and conduct of campaigns and major operations.”²¹

AirLand Battle doctrine describes the Army’s approach to generating and applying combat power at the tactical and operational levels. It is based on securing or retaining the initiative and exercising it aggressively to accomplish the mission. “The best results are obtained when powerful blows are struck against critical units or areas whose loss will degrade the coherence of enemy operations in depth....The pace must be fast enough to prevent him from taking effective counteractions.”²² The tenets of AirLand Battle are:

- ✧ Initiative – setting or changing the terms of battle by action
- ✧ Agility – the ability of friendly forces to act faster than the enemy
- ✧ Depth – extension of operations in space, time, and resources
- ✧ Synchronization – arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point²³

According to FM100-5, while the tenets characterize successful AirLand Battle operations, the imperatives prescribe essential operating requirements and apply to all

military operations. They are vitally necessary and historically valid for success on the modern battlefield.²⁴ The 1986 edition took the Combat Imperatives from the 1982 edition, renamed them AirLand Battle Imperatives, and increased the imperatives from seven to ten. The three AirLand Battle imperatives to be used as evaluation criteria are: Ensure unity of effort, Concentrate combat power against enemy vulnerabilities, and Anticipate events on the battlefield. The author chose AirLand Battle imperatives as evaluation criteria instead of the four tenets of AirLand Battle because much research has already been completed to determine if the tenets were employed during Desert Storm. The imperative of ensuring unity of effort, as an evaluation criterion, dominated the research because of its complexity and importance on operational decisions made during Desert Storm.

Criteria Defined.

FM100-5 (1986) was the official keystone warfighting manual for the U.S. Army when it deployed for Operations Desert Shield/Desert Storm. This monograph used the doctrinal definition of the three selected AirLand Battle imperatives as found in FM100-5 (1986).

Ensure Unity of Effort Defined

Commands must not only ensure unity of effort within their own organizations, but must also promote it with supporting and supported elements as well as with other service or functional components and allies. A fundamental prerequisite for unity of effort within military organizations is an effective system of command which relies upon leadership to provide purpose, direction, and motivation; emphasizes well-understood common doctrine, tactics, and techniques; and takes effective measures to limit the

effects of friction. Operational level commanders set conditions for battle by synchronizing ground, air and sea maneuver and by attacking the enemy throughout the theater of operations.

The commander, through his plan for a military operation must establish his intent, concept of operations, and responsibilities of subordinate units. The commander must effectively communicate them so they are clear and understood by everyone in the organization. The concept of operations should thoroughly coordinate ground and air support plans. The commander always designates a main effort and all other military actions throughout the force are conducted to ensure the success of the main effort. Commanders must understand the purpose of their operation so they can act decisively, confident that they are accomplishing their superior commander's intent.²⁵

Concentrate Combat Power Against Enemy Vulnerabilities Defined

Military organizations must seek out the enemy where he is most vulnerable to defeat. To know what his vulnerabilities are, commanders and staffs must study the enemy, know and take into account his strengths, find his inherent vulnerabilities, and know how to create new vulnerabilities which can be exploited to decisive effect. Having identified and created enemy vulnerabilities, the commander must have the mental and organizational flexibility to concentrate combat power to reach points of enemy vulnerability quickly without loss of synchronization. Operational planning must stress flexibility, concentration against enemy center of gravity while protecting the friendly center of gravity, synchronized joint operations, and aggressive exploitation of tactical gains to achieve operational results.²⁶

Anticipate Events on the Battlefield Defined

Operational art requires extensive vision, a detailed understanding of the relationship of means to ends, the ability to anticipate, and effective joint and combined cooperation. Operational commanders must also anticipate shifts in direction of operations and focus his organization to react faster than the enemy.

FM100-5 guides the Army on how to orient and prepare for an anticipated conflict and how to conduct operations once the operation begins. The commander and his staff must anticipate the enemy's actions and reactions and must be able to forecast how operations may develop. It is essential to anticipate what is possible and likely and prepare for those possibilities. Anticipating events and foreseeing the shape of possibilities days or weeks in the future are the most important skills to possess. Anticipation and foresight are essential to turning inside the enemy's decision cycle and maintaining the initiative.²⁷

CHAPTER 3
ANALYSIS OF MILITARY ACTIONS DURING OPERATIONS DESERT SHIELD
AND DESERT STORM

Ensure Unity of Effort

Countless minor incidents – the kind you can never really foresee – combine to lower the general level of performance, so that one always falls far short of the intended goal. Iron will power can overcome this friction; it pulverizes every obstacle, but of course, it wears down the machine as well.

Carl von Clausewitz, *On War*²⁸

The conduct of military affairs in Southwest Asia was marked by the particular positive integration of political and military actions almost from the start of the crisis. The Bush administration consistently maintained a clear understanding of both political and military objectives. Several factors led to this smooth integration. One important factor was General Powell's, Chairman, Joint Chief of Staff, close interaction between Secretary of Defense Cheney and General Schwarzkopf, Commander in Chief (CINC) Central Command (CENTCOM). Another factor was the ability of military commanders' staffs and planners to watch in real time through Cable News Network (CNN) President Bush and the Secretary Cheney announce essential policy decisions. This pattern of developing military objectives based on policy announcements initially helped to ensure unity of effort and was maintained consistently throughout Desert Shield and Desert Storm.²⁹

After the Iraqi invasion, President Bush was quick to identify and articulate the American national security policy objectives related to the crisis. The objectives were: (1) The immediate and unconditional withdrawal of Iraqi forces from Kuwait; (2) The restoration of the legitimate government of Kuwait; (3) The re-establishment and maintenance of the security and stability of Saudi Arabia and the Persian Gulf; and (4) The safety and protection of Americans and American nationals abroad.³⁰ Given force distribution, Secretary Cheney and General Powell understood that they could not immediately act upon the more aggressive military parts of these four national objectives. The Secretary of Defense realized he could act immediately to contain Iraq and defend against further Iraqi aggression and therefore Secretary Cheney and General Powell translated these political objectives the same day into three limited military objectives. These were (1) to deter further Iraqi aggression, (2) to improve Saudi Arabian military defense capabilities, and (3) to defend Saudi Arabia.³¹ The reliance on nonmilitary means to achieve or effect the declared national goals accounts for the difference between the two lists.

Between November 1990 and February 1991, CENTCOM and Army Forces Central Command (ARCENT) developed the concept of operations for the ground campaign using two corps. General Schwarzkopf modified the ARCENT concept of operations to conform to his vision of the execution of the battle in several briefings held with ARCENT during this period. As force build up began to present more aggressive military options, and as it appeared that non-military measures would not be successful, CENTCOM began developing offensive plans. Schwarzkopf's staff developed six new

primary military objectives for the conduct of the air and ground campaigns. The objectives were:

1. Attack Iraqi political-military leadership and command and control.
2. Gain and maintain air superiority.
3. Sever Iraqi supply lines.
4. Destroy known nuclear, biological and chemical production, storage and delivery capabilities.
5. Destroy Republican Guard forces in the Kuwaiti Theater of Operations.
6. Liberate Kuwait City.³²

While developing offensive courses of action General Schwarzkopf made some critical decision early in the military decision process that helped focus his planners. As early as 18 September 1990, in Schwarzkopf's initial offensive guidance, everyone understood that a frontal assault into the teeth of the Iraqi defense was to be avoided at all cost. His guidance to avoid an attack into the Iraqi's strongest defenses called for an indirect approach to reach and destroy Saddam's operational center of gravity. Schwarzkopf identified and communicated Iraqi's first military center of gravity, and CENTCOM's main objective, as the Republican Guard. The Republican Guard had pulled back from Kuwait to southeastern Iraq and constituted a theater reserve to conduct the decisive counterattack once the coalition forces were tied down in the forward defenses.³³

Later in the process, General Schwarzkopf further articulated his intent as follows: "Maximize friendly strength against Iraqi weakness and terminate offensive operations with the (*Republican Guard*) destroyed and major U.S. forces controlling the lines of communications in the KTO."³⁴ The air campaign would focus on achieving the first three objectives singularly, and join with the ground forces to achieve the last three. The ground campaign would focus on achieving the last three objectives. These

decisions made in early January 1991 were especially important to the theater planning. They allowed the entire military force to focus on achieving the CINCs intent and objectives. Once General Schwarzkopf approved the ground concept of operations and scheme of maneuver on 8 January, it did not change substantially through execution.

On 14 November 1990, Schwarzkopf held what was probably his most important briefing of the war from the stand point of communicating the commander's intent: he gave an overview of the concept of operations to all U.S. Army commanders down to the division level, he specified destruction of the Guard as the objective of the overall campaign, assigned VII Corps the main attack mission, and set mid-January as the time to be ready to execute the "Great Wheel" maneuver. As Dr. Swain stated in his book *Lucky War*, "This briefing and subsequent conferences and briefings ensured an extraordinary degree of unity of effort in the U.S. offensive. The selection and clear articulation of the command's military objective may well have been Schwarzkopf's greatest contribution as theater commander, for it produced a harmony of action rare in complex operations."³⁵

From the 14 November briefing onward, planning for the offensive proceeded at all levels with continuous dialogue and negotiation. From this time on, what had been up to this point a closely held planning process grew simultaneously vertically and horizontally in an environment in which each commander, from division level and above, had heard the concept of operations from the CINC himself.³⁶

One of the most important factors that stand out in the Desert Storm planning process is that the plan was the result of a process, not an event, and not "fathered" by any one person. The Third Army military planning process was marked by continuous discussion. Dialogue took place between CENTCOM above and subordinate corps and

support command staffs below and horizontally within ARCENT staff. The ground operational planning involved a planning process of iterative debate from the bottom to top.³⁷ As described in the book, *Lucky War*, “The process, best characterized as a series of “negotiations” was more important than the written products, for it was the process that ultimately produced not just direction but the detailed understanding at every level of how the battle would be fought.”³⁸ This built a single concept in the minds of all commanders, a critical element of successful synchronization of their incongruent activities.

Initially, the responsibility for developing the offensive plans had been given to a team of four School Of Advanced Military Studies (SAMS) graduates that were brought together specifically to become General Schwarzkopf’s future operation planners. Once the CINC was satisfied that he understood what each of his components must do, he transferred planning responsibility for Army operations to Third Army. Third Army’s staff structure was still immature, so Schwarzkopf placed this planning team under the supervision of Third Army’s Commander, Lieutenant General Yeosock and his G3, Brigadier General Arnold. This solution to Third Army’s personnel problems was both blessing and a curse in disguise. Using the same principle planners augmented with Third Army staff personnel would certainly ensure unity of effort between CENTCOM’s plan and Third Army’s plan. However, it also ensured that a fresh set of eyes and minds were not utilized to analyze the details of the plan at another level. More importantly, it left Schwarzkopf without a planning staff to look at the current operation and plan for the offensive and continue to ask, “What will happen next?”. This lack of future operations planners stunted the development of sequels – major operations that follow the current

operation. Plans for these are based on the possible outcomes (victory, stalemate, or defeat) associated with the current operation or plan.³⁹ A task that SAMS students are specifically trained and educated to do.

Upon initial deployment to Saudi Arabia, one of General Yeosock's biggest challenges was how to build a team within the coalition that eventually Third Army would control. On 13 August 1990, under the authority of the Joint Military Committee, he established the Coalition Coordination Communication Integration Center (C3IC). This organization was created to achieve unity of effort between the Saudi and American militaries. As a former Program Manager, Saudi Arabian National Guard (PMSANG), Yeosock realized that during operations in an allied state, ground forces bear a unique burden. American forces must live in, train, and conduct military operations on land that belongs to another nation, Saudi Arabia, and do so without undermining the legitimacy of the host nation government whose security is the reason for their presence. C3IC would initially help Third Army organize host nation support and later along with a network of liaison teams develop into an organization that contributed greatly to ensure unity of effort.

The C3IC helped to hold up a fragile coalition that did not benefit from any long term agreements like those in NATO or even Korea. This new Coalition was starting from scratch, without status-of-forces agreements or Standard Operating Procedures, C3IC provided an avenue to solidify the Coalition. This role was critical. It protected what Schwarzkopf identified as the Coalition's friendly center of gravity, the Coalition itself.⁴⁰

In November and December 1990, Third Army established two additional elements of the headquarters to ensure Yeosock's concept was communicated and understood – a mobile command post (CP) and seven liaison teams designed to be shadow staffs. Yeosock's intent for the mobile CP was as an alternate command post, a base for expeditors – that is, informed representatives of the commanders, who could go and see what was happening, clarify guidance, synchronize current operations, and provide timeliness feedback to the commander – who could untangle immediate problems. The mobile CP freed Yeosock and his G3 to focus on future operations.

Third Army also created liaison teams to send to adjacent and subordinate headquarters. The concept for the teams was similar to that of the C3IC organization. The liaison teams were not just used as messengers, but instead used as a means to influence the way allies conducted their planning and to even act as a shadow staff to assist them in complex staff work. Another important function that the teams provided was to provide first hand information that Yeosock could not have otherwise received due to distance. The leader of the teams also acted as "directed telescopes" – the eyes and ears of the commander.⁴¹ These team leaders reported directly to Yeosock's executive officer twice a day during the conduct of the battle. At the end of Desert Storm, Lieutenant General Yeosock called the liaison teams one of the three chief reasons for success in the Operation.⁴² The mobile CP and liaison teams not only helped to ensure unity of effort within their own organization, but also promoted it with supporting and supported elements as well as with other service and functional components and allies.

Once Third Army expanded to two Corps, Yeosock recognized the need to synchronize the plans of both corps. From 27 to 30 December Third Army commanders and selected members of their staffs conducted a Map Exercise (MAPEX). General Arnold, the ARFOR G3 intended this MAPEX to be a wargame, however, because of the number of people that attended it, and the subordinate commanders desires, the MAPEX turned in to a series of mutual briefings. During these briefings, the commanders raised issues, and the staffs would hold sessions to work out the solutions. Any issue that could not be solved was identified as an outstanding issue and was worked out by commander conferences at a later date.⁴³ This MAPEX was a useful means to help ensure unity of effort among Third Army's units and to clarify or at least identify any outstanding problems. It also provided an excellent tool to prepare Third Army's staff and Corps commanders before briefing General Schwarzkopf, and later General Powell and Secretary Cheney on Third Army's plan of attack.

As the CENTCOM CINC, General Schwarzkopf had enormous authority and responsibility. When appointed, a CINC's two primary warfighting commanders that can be designated are a Joint Force Land Component Commander and a Joint Force Air Component Commander. Each has overall operational control of allocated forces. During Desert Storm, however, General Schwarzkopf retained the role of Joint Force Land Component Commander for himself. This decision will be discussed later in detail.

Norman Schwarzkopf's personality and his command climate had an impact on how Third Army and its subordinate Corps understood and executed the ground campaign. The composite picture of this physically dominant figure is one of a complex man with "raw courage and an overriding ambition, but with a hair-trigger, explosive

temper that often got him into trouble.”⁴⁴ Schwarzkopf was “a terror as a boss, often furious when unhappy or dissatisfied.”⁴⁵ He consistently reinforced his reputation as “Stormin’ Norman.” General Carl Vuono, the Army Chief of Staff, considered him one of the most “difficult, stubborn and talented men in the Army.”⁴⁶ Schwarzkopf had an uncommon combination of command experience that spanned decades and included Vietnam and Grenada. That experience, commented Colonel Douglas Craft, “combined with a superior intellect permitted him to understand the totality of unified ops and their link to the strategic and political goals of the coalition nations.”⁴⁷

Schwarzkopf’s relationship with Lieutenant General Yeosock was ambivalent. Often, he was critical of Yeosock in front of his CENTCOM staff.⁴⁸ Nevertheless, he chose to leave Yeosock in command of Third Army when given the opportunity to replace him with Lieutenant General Waller after a ten-day absence for surgery in February.⁴⁹ When Schwarzkopf was angered, he often leaped down the chain of command and over supervised division commanders.

As Third Army commander, Lieutenant General Yeosock was the Army Component Commander for CENTCOM. His headquarters was tasked with support of contingency operations in the region. Yeosock became acquainted with Schwarzkopf’s personality and temper through a previous assignment as his deputy when Schwarzkopf was the Army Deputy Chief of Staff for Operations. This did allow him to see through Schwarzkopf’s temperamental outbursts and get the information he needed. In an attempt to avoid direct confrontation, he used the Third Army staff personnel – primarily Brigadier General Steve Arnold, his operations officer – to interact with Schwarzkopf on

a daily basis. Yeosock used personal access for private conversations and disagreements with the CINC.⁵⁰

In *The Generals' War*, Gordon and Trainor criticized Yeosock's lack of dynamism and quiet command style.

He had been assigned to head 3rd Army precisely because the Army had not expected a Middle East War. Running third Army was a job the Army doled out to officers on the verge of retirement. Yeosock seemed to acknowledge the limited skills he brought to the job. He feared Schwarzkopf's temper and often sought to get Waller to run interference for him on minor issues. Yeosock also deferred to his Corps commanders on strategy and tactics, each of whom reinforced the conservatism of CENTCOM's strategy.⁵¹

The reluctance of Yeosock to confront Schwarzkopf and his propensity to avoid frequent conflict significantly influenced the command environment.

The blend of Yeosock's personality, command style, and the roles he chose to fill as third Army commander significantly shaped the two-corps fight. Yeosock defined his role as "unencumbering" the two corps so that they could concentrate on training and fighting. He saw himself as a problem solver rather than a field commander.⁵² Dr. Swain, in *"Lucky War": Third Army in Desert Storm*, captures Yeosock's overall command climate:

Restructuring the Army HQ had to accord with a fundamental belief on the part of Yeosock that as a commander he commanded two corps commanders, not two corps. He believed his principal role was ensuring the sustainment of the force and allocation of the force multipliers not otherwise accessible to the corps, especially logistics, air power, and intelligence... Yeosock was determined to deal only with major issues and only with large units. So long as ARCENT, as the operational headquarters, could assign missions, allocate forces, set objectives and boundaries, conduct deep fires, and monitor progress, it was in Yeosock's view, synchronizing the operations of the two corps.⁵³

The CENTCOM and Third Army command environments reflected their commanders' character and personalities. "Where Schwarzkopf was mercurial, forceful,

and dynamic,” noted Dr. Swain, “Yeosock was thoughtful, thorough, and circumspect.”⁵⁴

The Third Army commander saw himself as a facilitator, while Schwarzkopf was an aggressive hands-on commander. Where Schwarzkopf was direct, Yeosock could be ambiguous. These factors, and the factors of command relationship, discussed next, led to what Clausewitz called friction – the “countless minor incidents – the kind you can never really foresee – combine to lower the general level of performance, so that one always falls far short of he intended goal.”⁵⁵ This friction led to a break in unity of effort during Desert Storm. This break is noticeable at least twice, once in the timing of the VIIth Corps attack and again when CENTCOM announced the cease-fire.

Late in the evening of 26 February (G-Day + 2), Lieutenant General Fredrick Franks, Commander of VII Corps, delayed the movement of his Corps ground offensive operations due to bad weather, limited visibility conditions, physical exertion, limited enemy contact and the lack of accurate intelligence on Iraqi troop movements. General Franks decided not to continue his night attack despite being told by General Schwarzkopf that VII Corps must continue to move. General Schwarzkopf and General Franks had a different perspective as to what the other should have done. For General Schwarzkopf sitting in Riyadh, the choice was easy, continue to move and attack. However, General Franks, the executor of the plan, was faced with the uncertainty of not knowing the location of Iraqi forces and the safety of his soldiers. These were concerns that factored in his decision to halt VII Corps’ movement.⁵⁶ The spatial difference between the two generals affected the degree of friction each encountered, which ultimately influenced their decisions and relationship.

The announcement and transition to a halt of offensive operations and cease-fire is another good example where CENTCOM's endeavor to ensure unity of effort failed. The difficulty on 28 February was that it was not enough to ask if the president's strategic military objectives had been accomplished. It also mattered politically how U.S. forces were postured when they stopped offensive operations and what were the Coalition's expectations for the Iraqi forces south of the Euphrates. Yet, once the decision to halt offensive military actions was made, clear military guidance did not follow the political declaration of the cease-fire.⁵⁷

Events on the ground drifted, with field headquarters inventing their own interpretations of the situation. Major points of confusion occurred during the on-again, off-again cease-fire order, selection and occupation of a site for the cease-fire talks, and what exactly were the rules of engagement and intent of the Commanders at the operational and tactical level.⁵⁸

Another problem area in unity of effort that developed in Desert Storm was the issue of General Schwarzkopf's decision to act as the CINC and the Land Component Commander (LCC). The coalition had already grown to a multinational, Joint Service force under the shared control of CENTCOM and the Saudi prince, Lieutenant General Khalid bin Sultan. The Saudi's had insisted on commanding all Arab forces. Years of NATO exercises and numerous standard agreements dealing with doctrine and training with British and French forces posed fewer problems for integration. Yet, the need to maintain unity of command, and therefore ensure unity of effort of the entire force, called for the establishment of a land component commander in charge of all ground forces.

As the commander of the VIIth and XVIIIth U.S. Corps, Lieutenant General Yeosock, Third Army commander was pushed in between the Corps commanders and the CINC. One of the greatest impediments to the organization and employment of Third Army was the lack of a coherent Army doctrine in 1990 for Army level of command. FM100-5 only discussed Corps level and below operations.⁵⁹ To complicate the matter worse, Third Army staffing was minimally manned due to the deployment policy of prioritizing for movement combat power elements first and keeping logistical and command and control resources deployment to a "minimum essential force" level.

"From 15 August until 9 October, the ARCENT force structure was in a constant state of flux as guidance on minimum essential force deployment, authority to mobilize Reserve Components, and strategic lift constraints were all balanced against a notional C+90 force."⁶⁰ Only 346 of the anticipated 825 officers and enlisted personnel called for by the Table of Organization and Equipment were deployed when the decision was made to deploy a second Corps in order to gain an offensive capability. Third Army had to recreate itself into a headquarters designed for operational and strategic offensive. A major restructuring of Third Army's staff organization took place in November and December to meet this challenge.⁶¹

When General Schwarzkopf made the tough decision to retain the land component commander responsibilities for himself, with Lieutenant General Waller as his primary assistant for ground combat operations he created a command environment of confusion. He made this decision for three reasons. One, the American forces straddled the Arab Corps, which made a unified command difficult. Two, he appears to have lacked confidence in Lieutenant General Yeosock. Three, he egotistically believed he

personally was the only commander who could orchestrate Allied, Arab, and American units.⁶²

Under this command relationship, Schwarzkopf was within his rights as the LCC to going directly to the Corps commanders with orders. However, it was expected for the U.S. Corps commanders to deal directly with Yeosock. Yeosock had to compete with Lieutenant General Horner, the Joint Forces Air Component Commander (JFACC), the Arab command, and the Marines for Schwarzkopf's (as the CINC) attention.⁶³ This rather convoluted arrangement went against the principles of simplicity and unity of command, and certainly hindered the ability of the coalition to ensure unity of effort.

The U.S. Army did use the AirLand Battle imperative of ensure unity of effort as a basis to plan and conduct Desert Shield and Desert Storm. The initial positive integration of political and military objectives, the collaborative planning process, and command and control facilitators (mobile CP, C3IC, and liaison teams) employed by Third Army exemplified how the imperative was applied. The friction created by the different leadership styles and General Schwarzkopf's decision to accept the responsibility of being the CINC and LCC are examples of mistakes that detracted from the endeavor to provide unity of effort.

Concentrate Combat Power Against Enemy Vulnerabilities

The first thing for a Commander in Chief to determine is what he is going to do, to see if he has the means to overcome the obstacles which the enemy can oppose to him, and, when he has decided, to do all he can to surmount them.

Napoleon
Maxim LXXIX⁶⁴

CENTCOM did clearly concentrate against the Iraqi vulnerabilities when they initiated the Air Campaign of Desert Storm. The Coalition's air power attacked the Iraqi vulnerabilities by focusing on their centralized command and control system that allowed their air defense system to operate. Through careful analysis, the JFACC staff understood that if they could destroy the Iraqi Kari integrated air defense system they could cause the air defense system to become paralyzed and disintegrate. To do this, they concentrated the initial air attacks on the command and control nodes, the sector and area operating systems, of the Iraqi air defense system. Once these were destroyed, the Coalition's air power gained freedom of action and destroyed the Iraqi air defense weapon systems a piece at a time.⁶⁵

However, General Schwarzkopf's decision to assume the responsibility as the LCC as well as the CINC created another unintended problem. The problem was a break in the necessary close relationship between the LCC and the ground component's battlefield coordination element (BCE). By doctrine, the BCE is the LCC's representative at the Joint Targeting Board. However, since Schwarzkopf was the LCC, and Third Army had the BCE as part of their organization there arose a serious disconnect. The BCE served instead as the ARCENT's interface with Lieutenant General Horner's staff, making it one of many competing voices in the daily targeting meetings. The ARCENT BCE chief, Colonel Schulte, did not have daily access to the CINC's

briefings where Schwarzkopf would often modify or issue new guidance directly to the Horner, the JFACC. This created a command relationship where the LCC's battlefield coordination element was not kept current on the LCC's priorities.⁶⁶

The BCE plays a vital role in coordinating the deep battle in AirLand Battle operations. This dysfunctional command relationship led to a problem in the ability of ground commanders to obtain fixed-winged Air Force assets to attack enemy strengths and create enemy vulnerabilities. The Army was dependent on the Air Force for the air component of AirLand Battle. Significant air support was necessary for tactical and operational success on the ground. In the context of an operational construct such as AirLand Battle, the idea of using deep fires, air and ground, simultaneous with close battle as a means of shaping future battlefield events was central to the concept of operational art.⁶⁷

Army AirLand Battle doctrine includes the concept of battlefield air interdiction (BAI). BAI insures that the commander can concentrate effects to achieve overwhelming combat power in one, synchronized battle. As defined in FM100-5 (1986), BAI is "air interdiction attacks against targets which have a near term effect in the operations or scheme of maneuver of friendly forces, but are not in close proximity to friendly forces."⁶⁸ These air support missions directly effect the immediate or impending ground action, and serve to shape the battlefield in a way that is evident almost immediately, not days down the road. The ground commander cannot rely solely on his organic fires to halt the oncoming foe on this expanded and highly dynamic battlefield.

An interservice issue was present, whether a balance could be struck between the doctrinal demands of the Army for integrated AirLand battle and the Air Force insistence

on centralized command and decentralized execution. Under the system present in 1990, the Army Corps could not give the Air Force mission orders to accomplish a supporting effort in its deep battle. Instead, the Army must nominate discreet targets. This did not fit the Army's AirLand Battle doctrinal approach to warfighting as it is explicitly stated in FM100-5 (1986) nor is it reflective of a dynamic battlefield that presents fleeting windows of opportunity. Army doctrine expected the Air Force to provide force application throughout the depth of the corps battlefield. The Army expected the air to ground engagements to be completely integrated into one, simultaneous battle.

The main problem was that the Army and Air Force were clearly at doctrinal odds over the question of air interdiction. Doctrinal differences between the Army and Air Force appeared to have been incompatible. Allocating BAI to the corps was at odds with the Air Force desire to maintain centralized control of interdiction under the JFACC. In fact, managing the flow of air traffic became so complex, that early on, Lieutenant General Horner decided that targeteers would have only two categories of offensive air available: air interdiction and close air support. BAI was deleted as a possible target category."⁶⁹

In particular, the Air Force system required the Army to nominate targets seventy two hours out, that in turn meant even longer lead times for target priority decisions by the Army, hindering agility. The requirement to nominate targets for the Air Tasking Order (ATO) was extremely difficult problem for the Army in the Gulf War. According to Major General Arnold, this process created a five-day cycle of targeting which was too slow and bureaucratic for the Army method of operations.⁷⁰ Additionally, the Air Force required that targets are revalidated eight and then again four hours prior to attack.

“Given an average of one hundred ten ARCENT-submitted targets per day and the size of the area, managing the effort to revisit each target was an almost impossible task.”⁷¹ This was especially difficult given the limited reconnaissance assets available to the corps.

Both agility and synchronization appear to be excluded when the corps commander does not own the air missions and therefore cannot divert them based on an evolving battle. Most importantly, the ability to concentrate overwhelming combat power simultaneously throughout the depth of the enemy was seen as crucial to the Army corps commanders ability to effectively shape the battlefield and force the enemy to conform to his will through decisive battle. ARCENT found that less than fifty percent of their requested targets even made in on the ATO. “The result was an immediate outcry from the corps commanders who, having lost their ability to designate BAI targets, still expected to [be able to] influence the general interdiction effort to conform with the corps plan to shape the battlefield.”⁷² This inability to focus the interdiction effort in the corps deep battle was a sever handicap of the commanders ability to create and execute decisive battle.

At the same time, there is support for the Air Force argument. If the deep battle forward of the Fire Support Coordination Line is strictly the focus of the JFACC then the entire interdiction effort becomes synchronized into a coherent deep operation. Likewise, if the interdiction capability was constantly parceled out to the corps commanders as BAI, then the CINC places at risk his ability to mass airpower for decisive operational effects. This dichotomy was the fundamental difference between the Army and Air Force views of how to create enemy vulnerabilities that the Coalition could concentrate combat power against to achieve successful results.⁷³

From D-day, 17 January 1991, to early February, very little air power was devoted in the tactical preparation of the corps' battlefield. This became of primary focus of ground commanders. The corps and division commanders became increasingly concerned that they would be ordered into battle prior to them having the opportunity to effectively shape the battlefield. By 1 February, ARCENT came to a consensus that approximately nine days of tactical preparation would be required for a successful ground attack. However, backward planning using this data was complicated from the fact that no one knew when G-day would arrive. This caused the ground commanders to question whether the CINC would reallocate his air assets in support of ground priorities in time to allow them to create the enemy vulnerabilities they needed to shape the battlefield in order to be successful.⁷⁴

ARCENT was so concerned with this that on 18 February, Brigadier General Arnold wrote as a cover letter for the ARCENT situation report:

AIR SUPPORT RELATED ISSUES CONTINUE TO PLAGUE FINAL PREPARATION FOR THE OFFENSIVE OPERATIONS AND RAISE DOUBTS CONCERNING OUR ABILITY TO EFFECTIVELY SHAPE THE BATTLEFIELD PRIOR TO INITIATION OF THE GROUND CAMPAIGN. ...ARMY NOMINATED TARGETS ARE NOT BEING SERVICED. EFFORTS MUST BE TAKEN NOW TO ALIGN THE OBJECTIVES OF THE AIR AND GROUND CAMPAIGNS AND ENSURE THE SUCCESS OF OUR FUTURE OPERATIONS.⁷⁵

On 19 February Schwarzkopf shifted the focus of his resources to preparing the battlefield for ground operations. However, the anticipated requirement for nine days of preparation was not to be realized. G-day was later set as 24 February, providing only five days of focused effort to shape the battlefield for ground corps commanders in order to create vulnerabilities that they could concentrate their combat force against.⁷⁶

When CENTCOM first briefed Lieutenant General Yeosock on their plan for offensive action (17 October 1990), he raised concern on the need to keep forces concentrated in the face of the unfavorable force ratios Third Army would confront. His other concerns were the desirability of a deception plan, the need to keep the east covered adequately while his forces concentrated for an attack in the west, and the difficulty of staging adequate logistic support in a timely fashion. On 21 October, Schwarzkopf personally set the operational objective of the attack as the physical destruction of the Republican Guard.⁷⁷

Lieutenant General Franks, who would lead the coalition's main attack, argued time and again for what he believed were three essentials for success. These were, "relentless attack (no pauses once the operation was under way), maintenance of concentration – hitting with a closed fist rather than open fingers – and the absolute need for three heavy divisions at the point of impact with the RGFC [Republican Guard Forces Command]."⁷⁸

The need for concentration meant a tightly controlled advance and a corps attack that moved deliberately north initially and then turned east into the Republican Guard's flank. The fist, the First and Third Armored Divisions, joined after the breach by the First Infantry Division, and the Second Armored Cavalry Regiment, would have to move under corps control to maintain concentration and avoid fratricide. Maintaining balance and concentration would require a good deal of the corps' energy as it moved into battle. This called for a highly disciplined, closely controlled maneuver, more commonly referred to as "The Great Wheel."⁷⁹

The words chosen by VIIth Corps staff in their order articulates Franks intent.

The order read:

The first phases of our operation will be maximum forces moving toward the RGFC with minimum casualties in minimum time. These phases will be deliberate and rehearsed....we will defeat forces to the east rapidly with an economy of force, and pass the point of main effort to the west of that action to destroy the Republican Guard Forces Command in a fast moving battle with zones of action and agile forces attacking by fire, maneuver, and air. Combat service support must keep up because there will be no pause.⁸⁰

VIIth Corps initial plan directed the entire corps to pass through a breach to be conducted by the First Infantry Division in the Iraqi defensive line. However, as the corps conducted more reconnaissance and they became more intimate with the terrain in their sector, they identified an abrupt end to the Iraqi defensive line. The defense and supporting obstacles stopped about forty kilometers from VIIth Corps boundary with XVIII corps. VIIth Corps modified their plans so that the two armored divisions and armored cavalry regiment, the core of the iron fist, would advance around the end of the Iraqi defensive positions but within their boundary with XVIII corps. "The end run was to be a tight squeeze. It required Third Armored Division to move in a column of brigades with a fifteen-kilometer front." The First Armored Division, left of the Third, had a front of only twenty-five kilometers.⁸¹ This maneuver avoided the deliberate defense and complex obstacles of the Iraqi front line and allowed VIIth Corps to create a vulnerability in the enemy defensive system. VIIth Corps found, in Jomini's words, a way "to obtain by free and rapid movements the advantage of bringing the mass of the troops against fractions of the enemy; ... to strike in the most decisive direction."⁸²

During Desert Storm, the AirLand Battle imperative of concentrating combat power against enemy vulnerabilities was applied. The disconnect between the Army's

AirLand Battle doctrine and the Air Force doctrine did hinder the ground commanders' ability to attack the enemy's strength and create new enemy vulnerabilities. The lack of control over BAI limited their ability to shape the battlefield in preparation for the ground attack. However, the Coalition's air power did attack the Iraqi's integrated air defense system's vulnerable centralized command and control system and caused it to become paralyzed. Also, the ground attack, specifically the VIIth Corps planned "Great Wheel" with its iron fist was an excellent example of concentrating combat power against a small, but very decisive fraction of the enemy's system.

Anticipate Events on the Battlefield Defined

In the Book of Proverbs it is written, "Where there is no vision, the people perish."...Vision, the ability to anticipate the course of future events, is what keeps the Army *steady on the course*.⁸³

It is the responsibility of planning headquarters like CENTCOM and Third Army to anticipate possible threats to national security within their areas of responsibility and to develop a plan that will allow the U.S. to protect its vital interests. General Schwarzkopf was one of the first to anticipate how the changing world environment might refocus the Army's strategic focus from Europe back to his area of responsibility. This changing environment was brought about by the end of the Cold War, the Berlin Wall coming down, and in 1988 the end of the Iran / Iraq war. With an enormous, well equipped Iraqi military force, Schwarzkopf realized that the Iraqis were now the most serious threat to stability in the Middle East.⁸⁴

For CENTCOM, this new environment meant shifting its focus from opposing a Soviet offensive through Iran, the most likely threat envisioned from 1983 to 1989, to a more regional threat, a theoretical Iraqi attack against its weak, oil rich neighbors in the south. In November 1989, General Schwarzkopf directed that the plan addressing a possible Soviet invasion of Iran, Operations Plan (OPLAN) 1002-90, be quickly revised to reflect an Iraqi invasion of Kuwait and Saudi Arabia. This plan was made CENTCOM's number one priority. In December Schwarzkopf requested and was granted permission to change the scenario for the biennial Joint Chiefs of Staff war game from a focus on a vanishing Soviet threat to defense of Kuwait and Saudi Arabia.⁸⁵

In January 1990, CENTCOM began to prepare war plans based on the Iraqi threat to the Middle East region. These plans would be co-developed and used by third Army

and formed the basis of the exercise, Internal Look, scheduled for July 1990. Also, during January, General Schwarzkopf appeared before the Senate Armed Forces Committee and testified that "Iraq is now the preeminent military power in the Gulf, and It is assuming a broader leadership role throughout the Arab world. Iraq has the capability to militarily coerce its neighboring states should diplomatic efforts fail to produce the desired results."⁸⁶

Schwarzkopf was not the only commander that anticipated this change. Lieutenant General Yeosock also anticipated the developing situation and as early as March 1989, directed Third Army to coordinate with the Army Concepts and Analysis Agency to conduct a war game simulation of the existing war plan for the Arabian Peninsula. This war game was called Persian Tiger 89 and was focused to determine if a significantly larger and heavier force was needed than had been predicted. Persian Tiger resulted in two significant findings. First, it was determined that U.S. forces would not be able to deploy to the region in time if the deployment started at the commencement of hostilities. Secondly, the war game determined that a larger and heavier force was required to accomplish the mission satisfactorily.⁸⁷

Between January and July 1990, CENTCOM, Third Army, and XVII Corps developed draft plans for the new contingency. United States Forces Command began selecting units to meet the requirements established by the draft plan. Their higher headquarters visited these units and a dialogue of briefings and discussions was started to develop the draft plan into a more coherent document.

This prewar planning proved very useful and helped to guide CENTCOM and Third Army at the initiation of Desert Shield. A clear demonstration of the planners

ability to anticipate future contingency requirements is clearly demonstrated in CENTCOM's strategy statement that was developed as part of the draft plan. The strategy that drove Third Army's operational planning and future exercises was described as:

The USCENTCOM regional contingency strategy to counter an intraregional threat initially seeks to [secure] U.S. and allied interests through deterrence. Should deterrence fail, the strategy is to rapidly deploy additional U.S. combat forces to assist friendly states in defending critical ports and oil facilities on the ARABIAN PENINSULA. Once sufficient combat power has been generated and the enemy has been sufficiently attrited, the strategy is to mass forces and conduct a counteroffensive to recapture critical port and oil facilities which may have been seized by enemy forces in earlier stages of conflict.⁸⁸

This strategy is very close to the strategy of deter, defend, and counter-offensive eventually used by CENTCOM during the Gulf War.

In mid-July, Third Army and other CENTCOM component planners deployed on an exercise to test their newly developed plan. Third Army called this exercise Internal Look and it was conducted from 23 to 28 July 1990. Internal Look was a joint exercise with all services and component commands fully integrated and participating in the exercise. Lieutenant General Yeosock used Internal Look as an opportunity to demonstrate to General Schwarzkopf that additional heavy forces and air defense systems were needed to adequately defend against the anticipated Iraqi threat.⁸⁹

On 4 August 1990, Yeosock was alerted by Schwarzkopf and later given the mission to start Third Army's deployment to Saudi Arabia. The Third Army commander went to work building his team using Internal Look and the troop list that had been drafted for the exercise as his base game plan. The experience of Internal Look was extremely useful but ARCENT OPLAN 1002-90 was still in draft format. Internal Look

had mostly focused on combat force requirements. It did also help logisticians to realize that a deployment to this region would heavily depend on Saudi host nation support. The time-phased force and deployment data from the draft plan was a good start but would require manual modification, ad hoc decision making and last minute improvisation.⁹⁰

U.S. Central Command and Third Army did successfully anticipate the contingency that occurred. When Iraq invaded Kuwait, a draft plan for just such a contingency did exist. CENTCOM and Third Army were able to respond much more promptly than would have been possible otherwise. For six months before their deployment, Third Army and XVII Corps staffs had analyzed the problems involved in this contingency. Yeosock had succeeded in increasing the heavy forces and Patriot missiles allocated to the plan.⁹¹

There are numerous other examples of Corps and Division commanders and staffs anticipating events on the battlefield and carefully preparing their units to meet the challenges that would face them. Before CENTCOM completed the draft offensive plan for Desert Storm, Lieutenant General Gary Luck, the XVIII Corps commander, instructed his staff and subordinate commanders to concentrate on developing plans for an offensive operations into Kuwait. He instructed them to make the plans generic in nature so the basic aspects of the plan could be applied to any offensive operational design Third Army developed. This resulted in battalion commanders within the brigades starting the military decision making process and developing base operations plans.⁹²

The VIIth Corps Commander, Lieutenant General Franks, had recognized the operational implications of the collapse of the Soviet Union and refocused the Corps training plan on movement to contact and attack from the march. This contrasted greatly

with the European General Defense Plan scenario of a linear forward defense that had dominated Army planning since end of the Vietnam War.⁹³

Additionally, as early as August 1990, VIIth Corps had started preparation for Desert Storm. Sensing the true impact of the situation in the Middle East, Franks alerted a small group of his planning staff and started to work on a plan to meet the challenges of deploying units from VIIth Corps to Saudi Arabia. Shortly afterwards the 4-229th Attack Helicopter battalion from the 11th Aviation brigade was alerted to deploy to the desert. Even after the 4-229th was dropped from deployment considerations, it reconfirmed Frank's belief and caused him to focus even more of his staff's time on a non-European battlefield. Lieutenant General Franks anticipated the prospect of rotating other units with those already in the Middle East should the deployment last much longer.⁹⁴

Likewise, the deployment of the First Infantry Division stationed at Fort Riley, Kansas, came as no surprise to its commander, Major General Thomas Rhame. He had correctly anticipated the need for additional units to deploy to Saudi Arabia. Because of his foresight, he had trained his division for several months on breaching operations and desert combat during several rotations at the National Training Center. Rhame understood that much could be done to prepare his unit even if he was unsure of the specific mission his unit would be given. Much of his training would influence the eventual role he would be assigned as part of VIIth Corps attack in Desert Storm. First Infantry Division was eventually assigned the mission to conduct a breach across the complex obstacles between the eastern flank of VIIth Corps and the Iraqi western defensive front.⁹⁵

Clearly one aspect of Desert Storm that was not anticipated by CENTCOM or Third Army was the victory that would be achieved after just one hundred hours of ground combat. The decision by the President after consultation with Generals Powell and Schwarzkopf to announce a cease-fire seems to have caught both CENTCOM and Third Army by surprise. The research indicated that no one at the operational level had anticipated or planned what the military conditions should be at the end of the ground battle. Surprisingly, Franks queried the Third Army staff on 8 February after a rehearsal if anyone had "thought about how it all was supposed to look on the ground when it was over."⁹⁶ Franks believed it was above his responsibility to determine this.

On 9 February, after a briefing to the secretary of defense, Secretary Cheney asked Lieutenant General Franks the same question. There was still no answer from anyone at the briefing. Drawing a conclusion from the confusion that was described earlier in this paper on the events that happened when the cease-fire was announced on 28 February, it would seem that the complex problem of war termination would be one detail not well thought out by the strategic or operational leadership.

Clearly leaders and their staffs can not afford to be inundated by current events and stop anticipating what will be required of their organization next. Lieutenant Colonel (LTC) Hal Moore's experiences at Ia Drang Valley, in Vietnam was a good example of how leaders must anticipate events on the battlefield. One of the earliest major engagements in the Vietnam conflict was fought by the 1st Battalion, 7th Cavalry, led by LTC Moore. This battle occurred in the Ia Drang Valley, and is better known as the battle of "LZ XRAY". During the fight, several staff officers observed LTC Moore, occasionally, to withdraw from the chaos of running the battle. After the battle, during a

debriefing, when questioned about these periods of withdrawal, Moore said that he had been reflecting. The method LTC Moore used to reflect was to ask himself three questions: 1) What is happening?, 2) What is not happening?, and 3) What can I do to influence the action?.⁹⁷ By asking himself the first two questions, LTC Moore was better able to anticipate what might or might not happen next. By reflecting on these answers, "he was able to open his mind to broader opportunities, to see the full range of his options."⁹⁸ These options developed into the answer to his third question. More importantly, this is where history shows that the leader at all levels can start to understand how he can gain or regain the initiative, and will allow him to become proactive and reactive versus being controlled by events and solely reactive.

Clearly one event that was not anticipated and planned for in detail was the military's tactical and operational endstate. General Schwarzkopf and Lieutenant General Yeosock failed to anticipate, visualize, plan, and communicate what the military conditions should have been at the end of the ground battle. However, identifying the need for and developing OPLAN 1002-90 and conducting the Internal Look exercise clearly demonstrated that CENTCOM and Third Army applied the AirLand Battle imperative of anticipating battle events. XVIIIth and VIIth Corps' and 1st Infantry Division's actions prior to and during Desert Shield provided other examples of military commanders anticipating battlefield events and preparing their units for them.

CHAPTER 4

CONCLUSION

The starting point for the Army's preparation for war is doctrine. It not only tells how we can fight and win on the battlefield, but it also guides designing and modernizing our forces. Our AirLand Battle doctrine describes how we can defeat the enemy, but it can only work when it is carried out all the way down to the level of the individual soldier and his weapon.... The Army's war-fighting doctrine is entitled AirLand battle in recognition of the need for total integration of the combat power of all Services in modern war.

General Carl E. Vuono
Chief of Staff of the Army⁹⁹

Introduction

The study of Desert Shield / Desert Storm revealed that the U.S. Army did use the three AirLand Battle imperatives of ensure unity of effort, concentrate combat power against enemy vulnerabilities, and anticipate events on the battlefield as a basis to conduct the Gulf War. Mistakes were made in applying these imperatives, however, the ground offensive was planned and conducted in accordance with the Army's AirLand Battle doctrine. The AirLand Battle doctrine that was developed during the decade following the U.S. defeat in Vietnam, and is an application of classic twentieth-century maneuver theory for mechanized forces.

Ensure Unity of Effort

The conduct of military affairs in Southwest Asia was discernible by an initially smooth integration of political and military actions almost from the beginning. The ever-

presence of CNN, assisted operational commanders' staffs in theater to receive guidance immediately and therefore react to it instantaneously. This practice was instrumental in maintaining both the cohesion of the alliance and ensuring that a unity of effort among all forces in the field. However, as discussed earlier, not anticipating or planning what the military conditions should be at the end of the ground battle did result in a breakdown of unity of effort towards the end of Desert Storm.

General Schwarzkopf early decisions on critical issues, identification of the Iraqi operational center of gravity (and the coalitions main objective), and widespread communication of his intent with all of his commanders greatly helped to ensure unity of effort with all forces within the coalition. His "most important meeting" on 14 November 1990, caused the planning process to grow horizontally and vertically in an environment in which each commander had heard the CINC's concept for operations from Schwarzkopf himself.

Planning was a multi-echelon iterative process highlighted by dialogue between all levels of command. The planning process was punctuated by a series of events, guidance given, planning sessions, discussions, and confirmation briefs in which the entire command structure developed their understanding of Schwarzkopf's concept.

Third Army's effective use of liaison teams and their C3IC resulted in the formation of information systems that helped reduce what Clausewitz termed uncertainty, and ensured unity of effort during both planning and execution of Desert Storm. Certainly, AirLand Battle doctrine, especially its deep attack aspects, presented one of the greatest challenges ever in the development of effective command and control. A fundamental characteristic of the type of leadership inherent in AirLand Battle doctrine is

that all operations, at every echelon, must proceed from a full understanding of the commander's intent. Helping to establish, clarify, and gain commitment to the commander's intent was an essential function fulfilled by Third Army's liaison teams.

Third Army's Liaison teams and C3IC enabled Lieutenant General Yeosock and his staff to anticipate and assess situations rapidly. Rapidly and accurately obtaining vital battlefield information specifically requested by Yeosock enabled him to respond quickly and decisively in many situations. The vertical and horizontal liaison functions of the systems also had tremendous command and control implications in the area of synchronization of overall operations and clearly helped to ensure unity of effort in Operation Desert Shield and Desert Storm.

"Schwarzkopf's greatest shortcoming was his inability to take an elevated view of the battlefield, to recognize and accept the presence of friction in execution and "noise" in the information system."¹⁰⁰ One cause of this shortcoming may have been his acceptance of the additional role of LCC. An additional headquarters, or allowing Third Army to act as the land component, with an Arab co-commander for Arab forces, might have provided a simpler chain of command, reduced confusion, and helped to better ensure unity of effort

Clearly, General Schwarzkopf understood that one person or team could not be responsible to execute the current mission and plan for future operations. He demonstrated that understanding when he asked for, and received, a "special planning team" to plan future operations for CENTCOM. His decision to act as CINC and LCC resulted in his becoming so focused on the current fight and did not allow him to plan for the achievement of an operational and strategic endstate that would obtain the national

objectives. This clearly proved to be an instance where the AirLand battle imperative of ensure unity of effort was not achieved.

Concentrate Combat Power Against Enemy Vulnerabilities

Desert Storm followed the Jominian tradition of achieving victory by the successive destruction of fractions of the enemy's force by masses of your own. As articulated by J.F.C. Fuller, the benefit of mechanization had to do largely with the ability of mechanical transport to concentrate forces rapidly against more vulnerable and more decisive areas.¹⁰¹

AirLand Battle doctrine, as described in FM100-5 (1986) states:

The object of all operations is to impose our will upon the enemy....To do this we must throw the enemy off balance with a powerful blow from an unexpected direction, follow-up rapidly to prevent his recovery and continue operations aggressively to achieve the higher commander's goals. The best results are obtained when powerful blows are struck against critical units or areas whose loss will degrade the coherence of enemy operations in depth.¹⁰²

This clearly describes the operational maneuver conducted by the coalition, especially XVIII Corps deep and rapid penetration and VIIth Corps "Great Wheel".

The conditions necessary to create the decisive battle should have resulted from a mutually supporting effort of the air and ground forces. However, in Desert Storm, during the establishment of conditions necessary for the battle, the JFACC drove the interdiction plan. According to AirLand Battle, and supported by the imperative to concentrate against enemy vulnerabilities, once the battle began (including the time needed to shape the battlefield), the corps commanders responsible for the ground battle should have been given an apportionment of BAI to integrate directly into his battle plan. This only occurred five days before start of ground operations, versus the 9 days of BAI

required by Lieutenant General Franks. During the battle phase, the corps commander must be able to synchronize all aspects of his concept, to include deep attacks. This will allow him to concentrate his attack on existing vulnerabilities and create new enemy vulnerabilities to attack.

The air/ground operating system must fully exploit the agility and responsiveness of the emerging information systems to attack targets based on near real-time intelligence. Likewise, the system must be able to help corps commanders develop decisive battles based on rapidly appearing changes on the battlefield.

Anticipate Events on the Battlefield

One of Third Army's major successes in the account of its part in the Gulf War was its anticipation of the contingency to fight on the Arabian Peninsula. When Iraq occupied Kuwait, CENTCOM, Third Army and XVIII Corps had planned for just such a contingency. They were therefore able to respond much more rapidly. The Internal Look exercise conducted by Third Army was the culmination of peacetime analysis and planning. Desert Shield was an initial response to the crisis in the Middle East based on a set of circumstances and missions developed during Internal Look and OPLAN 1002-90.

Clearly one aspect of Desert Storm that was not anticipated was the conditions necessary for the war's termination. What was absent was a clear and common vision of how U.S. forces should be distributed on the ground to facilitate the inevitable transfer of the conflict's focus and energies back to the political arena. Undoubtedly, the U.S. failed to anticipate this event at the strategic, operational and tactical levels of war. As described by Cohen and Gooch in their book *Military Misfortunes*, in this instance, the

U.S. clearly demonstrated "the inability to foresee and take appropriate measures to deal with an enemy's move, or a likely response to a move of one's own."¹⁰³

Conclusion

Desert Storm commanders and staffs did use the three AirLand Battle imperatives of ensure unity of effort, concentrate combat power against enemy vulnerabilities, and anticipate events on the battlefield as a basis to conduct the Gulf War. The American Army was organized and equipped for defense of Europe and not for a great offensive operation on the Arabian Peninsula. Mistakes were made and many positive and negative lessons were learned that allowed the Army to further develop AirLand Battle doctrine.

The U.S. Army needs to conduct additional research in several areas. One area that should be researched more fully is the decision to allow Arab forces to liberate Kuwait City. This research must go beyond the obvious political ramifications of the requirement that symbolically allowed Arab forces to liberate Kuwait from Iraqi forces. A detailed study should be done to fully understand the effects that combat had on the allied Arab Forces morale and the ramifications those effects had on the U.S. decisions. These effects and decisions are essential in the wake of the believe that U.S. forces will for the most part, conduct all future military actions as part of a coalition.

In addition, the Army should conduct more extensive research on the effects that battle had on leaders and units, especially in the area of fratricide. Dr. Swain proposes, in his book "*Luck War*" *Third Army in Desert Storm*, that the occurrence and concern over fratricide caused operational and tactical commanders to impose restrictions to the extent that these restrictions subordinated the operational plan. These fratricide avoidance

measures created opportunities for the Iraqi's to attack and cause numerous casualties, luckily the Iraqi's did not identify these opportunities or were unable to pursue them.

Notes

¹ Carl E. Vuono, *Collected Works of the Thirty-First Chief of Staff, United States Army*, ed. Douglas D. Brisson (Washington, D.C., date unknown), 131.

² Richard M. Swain, "*Lucky War:*" *Third Army in Desert Storm*, (Fort Leavenworth, KS: U.S. Army Command and General College Press, 1997), 1-2.

³ U.S. Department of the Army, FM 100-5, *Operations* (Washington, D.C., May 1986), i. Hereinafter, FM 100-5 (1986).

⁴ Ibid., i.

⁵ Roger J. Spiller, "In the Shadow of the Dragon: Doctrine and the U.S. Army After Vietnam," *The Journal of the Royal United Services Institute for Defence Studies* vol. 142, no 6 (December 1997), 41.

⁶ General William E. DePuy, "Unification: How Much More?," in *Army* 11 (April 1961): 30-38. Reprinted in *Selected Papers of General William E. DePuy*, 36.

⁷ Spiller, 41.

⁸ Brigadier General Robert H. Scales, Jr., *Certain Victory: The U.S. Army in the Gulf War*, (Fort Leavenworth, KS: U.S. Army Command and General College Press, 1994), 107.

⁹ Colonel David A. Fastabend, "FM100-5, 1998: Endless Evolution," in *Army* (May 1997): 46-57.

¹⁰ Spiller, 52-53.

¹¹ Richard M. Swain, "AirLand Battle," (Paper awaiting publication and in possession of the author), 34.

¹² Russell Weigley refers to the "American way of war" as a national style of warfare, defined by its characteristically attritional inclination even in those instances when a more strict application of violence may have been more appropriate. Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy*, (Bloomington, Indiana: Indiana University Press), xvii-xxiii.

¹³ Joint Chiefs of Staff, JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*, (Washington, D.C., Amended through 12 January 1998), 316.

¹⁴ Gordon R. Sullivan, *Gordon R. Sullivan: The Collected Works 1991-1995*, (Washington, D.C., 1995), 92.

¹⁵ Internet, "Army Mission and Vision", URL www.army.mil/mission_vision.htm, June 1998, 1.

¹⁶ FM 100-5 (1986), 5.

¹⁷ John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982*, (TRADOC Historical Monograph Series. Fort Monroe, VA: Historical Office, U.S. Army Training and Doctrine Command, 1984), 13-14. Also, see Spiller, 52, and Richard M. Swain, "Filling the Void: The Operational Art and the U.S. Army," in *The Operational Art: Developments in the Theories of War*, ed. B.J.C. McKercher and Michael A. Hennessy, (Westport, CT: Praeger Publishers, 1996), 148.

¹⁸ Huba Wass de Czege, U.S. Army Command and General Staff College, Memorandum by Colonel Huba Wass de Czege for Reviewers of FM 100-5, dated 1 July 1985, Subject: The Nature and Reasons for Changes in This Edition, in archives of U.S. Army Command and General Staff College, Fort Leavenworth, KS, file CGSC 86, SAMS-0019, p. 2.

¹⁹ Richard M. Swain, "Filling the Void: The Operational Art and the U.S. Army," in *The Operational Art: Developments in the Theories of War*, ed. B.J.C. McKercher and Michael A. Hennessy, (Westport, CT: Praeger Publishers, 1996), 164.

²⁰ FM 100-5 (1986), 9.

²¹ Ibid., 10.

²² Ibid., 14.

²³ Ibid., 15-17.

²⁴ Ibid., 22-23.

²⁵ Ibid., 22-23.

²⁶ Ibid., 14-15; 23-24.

²⁷ Ibid., 23.

²⁸ Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret, (New Jersey: Princeton University Press, 1989), 119.

²⁹ Swain, "Lucky War", 32.

³⁰ *Conduct of the Persian Gulf War: Final Report to Congress*, Vol. 1 (Washington, D.C.: U.S. Department of Defense, April 1991), 1-6.

³¹ Swain, "Lucky War", 31-32.

³² *Conduct of the Persian Gulf War: Final Report to Congress*, Appendices A-S (Washington, D.C.: U.S. Department of Defense, 1992), I:18. Although not listed here, Central Command planners assumed as implied objectives the destruction of an Iraqi offensive capability and a consequent restoration of a regional balance of military power. See Swain, "Lucky War", 78.

³³ Scales, 128-131.

³⁴ *Conduct of the Persian Gulf War: Final Report to Congress*, Vol. 1, 231 and Robert A. Sterling, *Desert Storm: The War the Coalition Almost Lost*, Research Project (Newport, Rhode Island: Naval War College, 1993), 12.

³⁵ Swain, "Lucky War", 90-91.

³⁶ Scales, 137 and Swain, "Lucky War", 73, 91-92.

³⁷ Swain, "Lucky War", 103, 127.

³⁸ Swain, "Lucky War", 77.

³⁹ U.S. Department of the Army, FM 101-5-1, *Operational Terms and Graphics*, (Washington, D.C., September 1997), 1-139.

⁴⁰ Scales, 122 and Swain, "Lucky War", 54-55.

⁴¹ Gary B. Griffin, *The Directed Telescope: A Traditional Element of Effective Command*, (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1991), 1-2.

⁴² Swain, "Lucky War", 146-151.

⁴³ Scales, 140 and Swain, "Lucky War", 74, 110.

⁴⁴ Bruce Palmer, "But it Does Take a Leader: The Schwarzkopf Autobiography," in *Parameters*, vol. XXIII, no.1 (Spring 1993), 22.

⁴⁵ Douglas Craft, *Strategic Studies Institute Report: An Operational Analysis of the Persian Gulf War*, (Carlisle Barracks, PA: U.S. Army War College, 1992), 10.

⁴⁶ Bob Woodward, *The Commanders*, (New York: Simon and Schuster, 1991), 287.

⁴⁷ Craft, 10.

⁴⁸ Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War*, (Boston: Houghton Mifflin Company, 1993), 248.

⁴⁹ H. Norman Schwarzkopf, *It Doesn't Take a Hero*, (New York: Bantam Books, 1991), 446.

⁵⁰ Scales, 46-49.

⁵¹ Michael R. Gordon and General Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf War*, (New York: Little Brown and Company, 1995), 300-301.

⁵² John J. Yeosock, "Army Operations in the Gulf Theater", in *Military Review*, 71, no. 9 (September 1991), 3-15.

⁵³ Swain, "*Lucky War*", 143-144.

⁵⁴ *Ibid.*, 19.

⁵⁵ Clausewitz, 119.

⁵⁶ Scales, 261-290.

⁵⁷ Swain, "*Lucky War*", 280.

⁵⁸ *Ibid.*, 280-307 and Scales, 308-316.

⁵⁹ Swain, "*Lucky War*", 17, 20.

⁶⁰ *Ibid.*, 40-42.

⁶¹ *Ibid.*, 21-27.

⁶² Steve Arnold, Key Decisions for Desert Storm, 1 August 1991. Memorandum for the Commanding General Third Army. (Notes in possession of author. Also available from the personal papers of Dr. Richard Swain, School of Advanced Military Studies, Command and General College, Fort Leavenworth, KS), 1.

⁶³ Scales, 140-141.

⁶⁴ Bonaparte Napoleon I, *Napoleon and Modern War; His Military Maxims*, (Harrisburg, Pennsylvania: Military Service Publishing Company, 1943), 103.

⁶⁵ I am indebted for this insight to Major Joel Westa, Air Force Student, School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 27 April 1999.

⁶⁶ Scales, 180.

⁶⁷ Swain, "*Lucky War*", 184-185.

⁶⁸ FM 100-5 (1986), 49.

⁶⁹ Swain, "*Lucky War*", 178.

⁷⁰ Scales, 178-180.

⁷¹ Swain, "*Lucky War*", 178-180.

⁷² Ibid., 180.

⁷³ Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Summary Report*, (Washington, D.C.: U.S. Government Printing Office, 1993), 235-251.

⁷⁴ Swain, "*Lucky War*", 184-185.

⁷⁵ Message, 170300Z FEB 91, FM COMUSARCENT MAIN//DT//, MSGID / SITREP / USARCENT / D + 32 / FEB//, PERID/170300Z/ TO:180300Z, GENTEXT/COMMANDER'S EVALUATION/, 17, quoted in Swain, "*Lucky War*", 189.

⁷⁶ Swain, "*Lucky War*", 189.

⁷⁷ Ibid., 82-83 and Scales, 131.

⁷⁸ Swain, "*Lucky War*", 117.

⁷⁹ Ibid., 117.

⁸⁰ HQ, VII Corps, OPLAN 1990-2, Operation Desert Saber, 13 January 1991, 5-6, as quoted in Swain, "*Lucky War*", 210-211.

⁸¹ Swain, "*Lucky War*", 104.

⁸² Antoine Henri Baron de Jomini, *The Art of War*, trans. Captain G. H. Mendell and Lieutenant W. P. Craighill (Philadelphia, Pennsylvania: J. B. Lippincott & Co., 1862; reprint, Westport, Connecticut: Greenwood Press, n.d.), 299.

⁸³ John A. Wickham, Jr., *Collected Works of the Thirtieth Chief of Staff, United States Army*, (Washington, D.C., 1988), 301.

⁸⁴ Swain, "*Lucky War*", 4.

⁸⁵ Scales, 43 and Swain, "*Lucky War*", 4.

⁸⁶ Statement of General H. Norman Schwarzkopf, Commander in Chief, United States Central Command," in United States Senate, Hearings Before the Committee on Armed Services, One Hundred First Congress, Second Session, 12 December 1989; 23, 24, 25, 26, 30 January; 2, 6, 7, 8, 21, 22 February; 7 March 1990 (S. Hrg. 101-70), 608,626, as quoted in Swain, "*Lucky War*", 5.

⁸⁷ Swain, "*Lucky War*", 6.

⁸⁸ HQ, ARCENT, COMUSARCENT OPLAN 1002-90 (Draft), 16 July 1990,4, as quoted in Swain, "*Lucky War*", 7.

⁸⁹ Scales, 44.

⁹⁰ Ibid., 44, 58 and Swain, "*Lucky War*", 35, 39.

⁹¹ Swain, "*Lucky War*", xv.

⁹² Scales, 125-126.

⁹³ Lieutenant Colonel Peter Kindsvatter, "VII Corps in the Gulf War: Deployment and Preparation for Desert Storm," *Military Review* 72 (January 1992), 4.

⁹⁴ Scales, 133-134.

⁹⁵ Scales, 136-137.

⁹⁶ Swain, "*Lucky War*", 124.

⁹⁷ Gordon R. Sullivan and Michael V. Harper, *Hope is Not A Method*, (New York: Random House, 1996), 46-47.

⁹⁸ Ibid., 47.

⁹⁹ Vuono, 24,135.

¹⁰⁰ Swain, "*Lucky War*", 341.

¹⁰¹ Brain Holden Reid, *J. F. C. Fuller: Military Thinker*, (New York: Saint Martin's Press, 1987).

¹⁰² FM 100-5 (1986), 14.

¹⁰³ Eliot A. Cohen and John Gooch, *Military Misfortunes*, (New York: Collier Macmillan Publishers, 1990), 27.

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